

NM4 SpO₂ Replacement

INSTALLATION PROCEDURE

This procedure provides instructions for replacing SpO₂ assembly P/N 4111098 with new assembly P/N 4113098, including relocation instructions. SpO₂ Relocation Kit P/N 4113147-002 is required to perform this replacement.

CAUTION: Use proper ESD control during all removal and installation procedures.

1. Turn the System Power switch to STANDBY and remove AC power from the machine.
2. Disable all circuit breakers by pulling out each button with a knife or sharp object.

CAUTION: Do not plug or unplug the remote display cable with power applied.

3. Disconnect the following items from the patient interface panel on the left side of the monitor box:
 - Remote Display cable
 - BP Cuff & BP Gauge lines
 - Pulse Oximeter cable
 - Datagrip cable (if applicable)
4. Remove the disposable reservoir (and green filter, if so equipped) from its holder.
5. Remove the screws holding the monitor box cover, and carefully lift the cover from the monitor box.
6. Locate the primary speakers mounted to the card cage top cover. See Figure 1.

7. Remove the speakers by unscrewing their mounting rings.

8. Place the third speaker adapter plate (P/N 4113139) on the inner edge of the original 2-speaker mount, and reinstall the speakers as shown in Figure 2. The two primary speakers will hold the adapter plate in position.

NOTE: The two holes in the adapter plate that are closest together are for the existing primary speakers. The remaining hole is for the SpO₂ speaker which will be mounted in the next step.

9. Remove the speaker from the existing SpO₂ assembly by unscrewing its mounting ring.

Reinstall the SpO₂ speaker in the open hole in the third speaker adapter plate as shown in Figure 2.

Disconnect the cables from the existing SpO₂ assembly, and remove the assembly from the monitor chassis.

Disconnect the other ends of these cables from their backplane destinations, and remove the cables from the monitor chassis.

INSTALLATION PROCEDURE (continued)

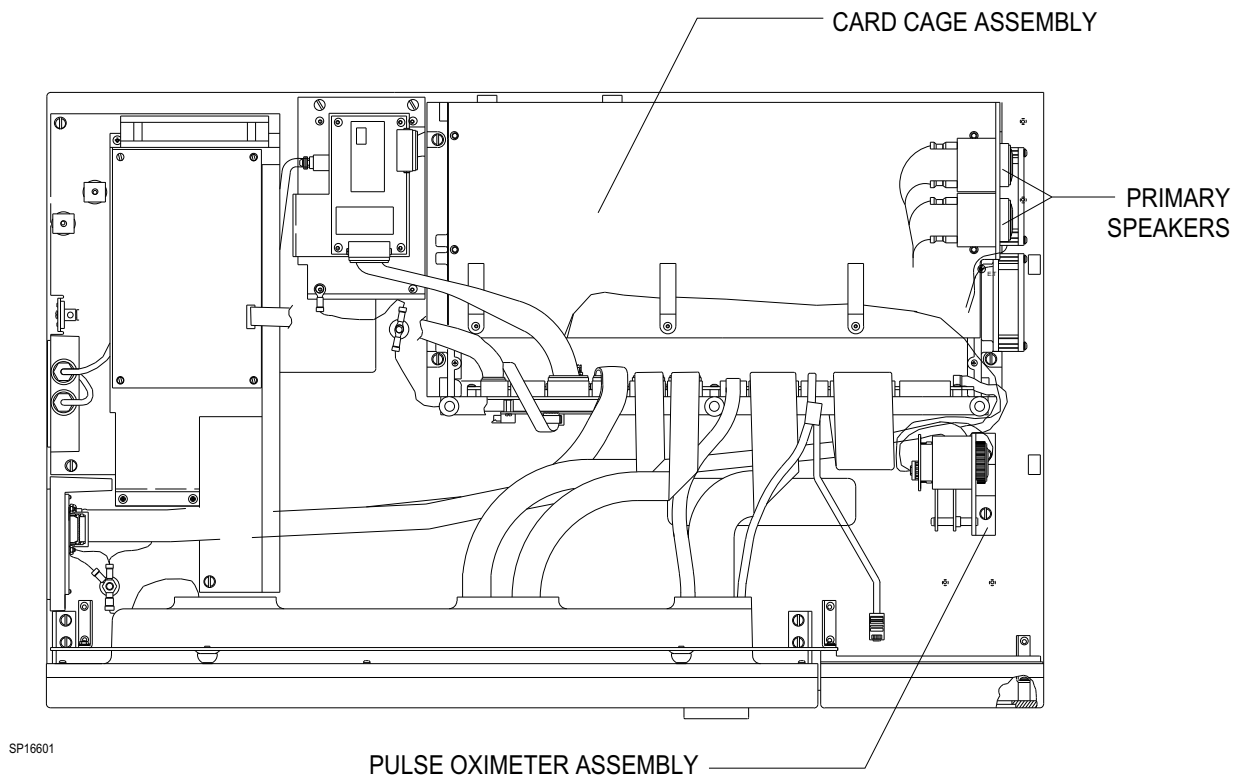
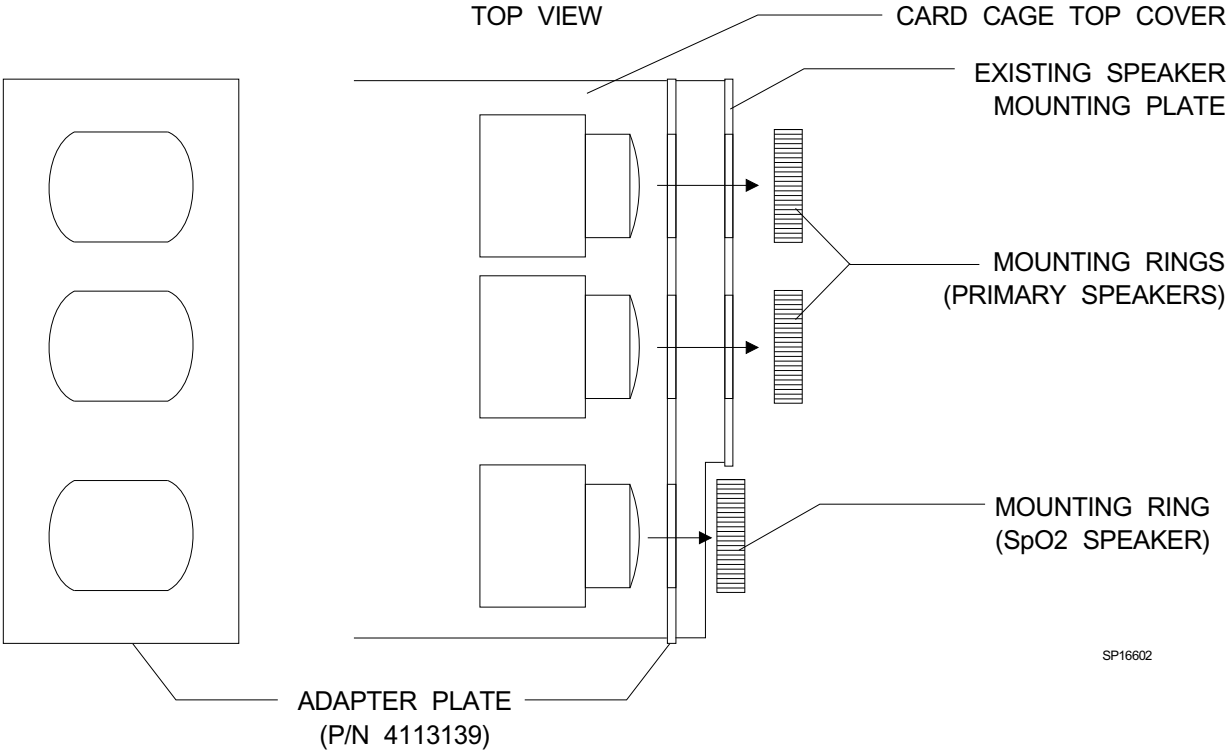


Figure 1: MONITOR BOX - TOP VIEW

INSTALLATION PROCEDURE (continued)



SP16602

Figure 2: THIRD SPEAKER ADAPTER PLATE INSTALLATION

INSTALLATION PROCEDURE (continued)

10. Remove the SpO₂ interface panel and cable assembly from the patient interface panel at the left side of the monitor chassis. See Figure 3.
11. Disassemble the SpO₂ interface panel and cable assembly by loosening the lock nut. Slide the lock nut, ground wire ring, and lock washers down to the 10-conductor connector at the end of the Nellcor cable.

Turn the connector parallel to the cable and carefully slide the lock nut, ground wire ring, and two lock washers over the connector.

Slide the Nellcor SpO₂ cable through the hole in the interface panel and discard the cable.

12. Reassemble the SpO₂ interface panel and cable assembly using the new Nellcor SpO₂ cable (P/N 4111731) supplied in the parts kit. Refer to Figure 3 for details on the correct positioning of the cable in the interface panel.

Install the SpO₂ interface panel and cable assembly into the patient interface panel.

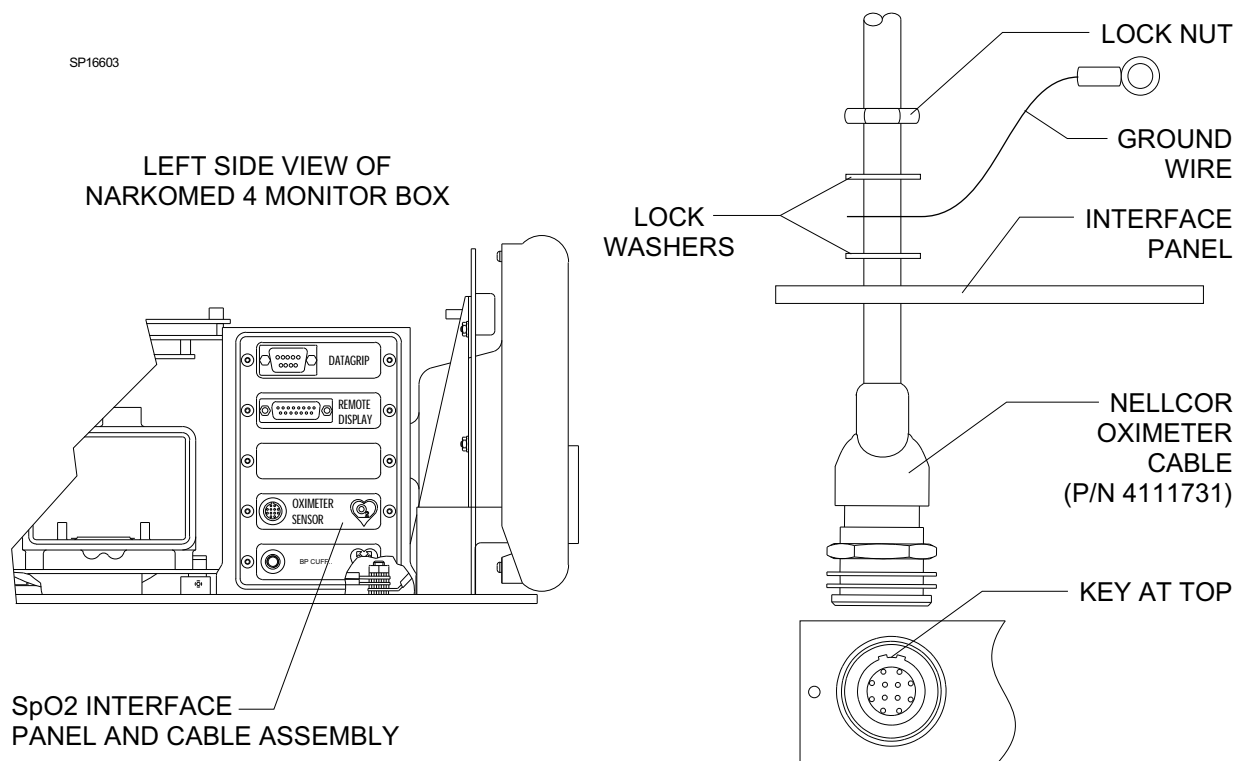


Figure 3: SpO₂ INTERFACE PANEL & CABLE ASSEMBLY

INSTALLATION PROCEDURE (continued)

13. Examine the monitor box base plate. Later model Narkomed 4s have two tapped holes in the base plate as shown in Figure 4. If the machine has these holes, proceed to Step 17.
 14. Remove the two button head hex screws and any lock washers from the left front edge of the backplane assembly. See Figure 5.
 15. Install two spacers (P/N 4110589-019) and lock washers (P/N HW68000) in the holes where the screws were removed.
 16. Mount the SpO₂ adapter bracket (P/N 4113138) to the spacers installed in the previous step reusing the screws removed in Step 14. See Figure 5.
 17. If the monitor chassis base plate has the tapped holes, mount the SpO₂ assembly (P/N 4113098) in these holes, positioning it with the Nellcor SpO₂ PCB facing the front of the machine.
- If the SpO₂ adapter bracket was installed in Steps 14 - 16, mount the SpO₂ assembly (P/N 4113098) to the adapter bracket with the Nellcor SpO₂ PCB facing the front of the machine.

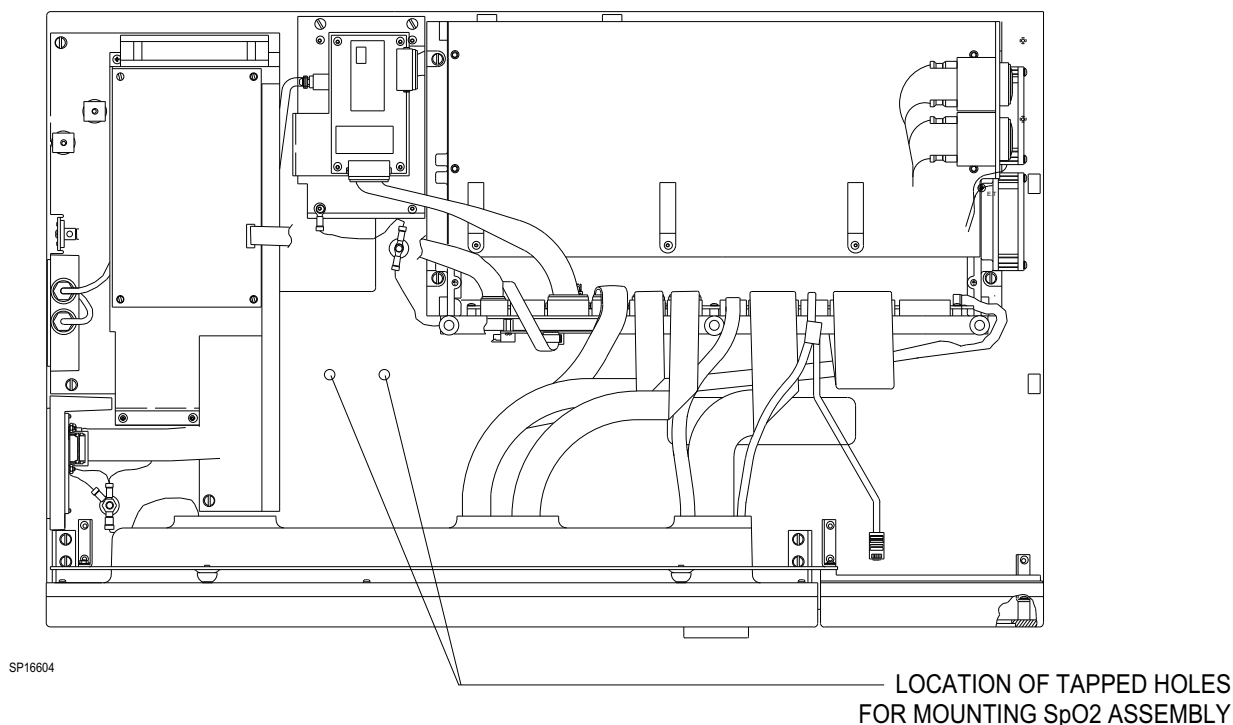


Figure 4: MONITOR BOX TOP VIEW, LATER MODELS

INSTALLATION PROCEDURE (continued)

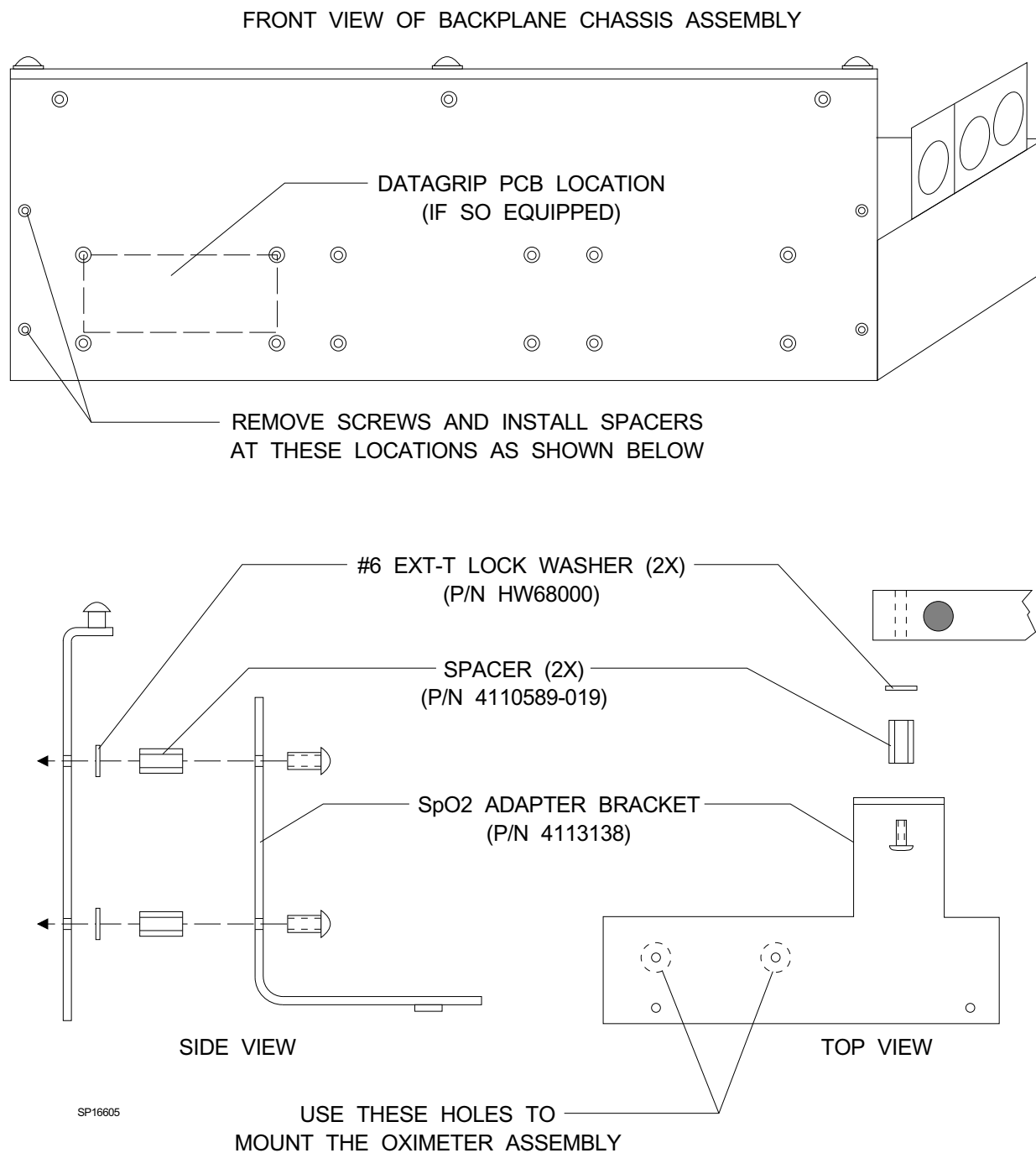


Figure 5: BACKPLANE MOUNTING OF SpO₂ ADAPTER BRACKET

INSTALLATION PROCEDURE (continued)

18. Connect the ribbon cable (P/N 4109131) to JP5 on the MP-203 oximeter PCB. Ensure that Pin 1 of the connector aligns with Pin 1 (indicated by an arrow in the connector) of the interface cable connector. See Figure 6 for details on the location of Pin 1 on the oximeter PCB connector.

Connect the other end of this cable to J12 on the backplane PCB.

19. Connect the interface panel cable to JP3 on the MP-203 oximeter PCB. Ensure that Pin 1 of the connector aligns with Pin 1 (indicated by an arrow in the connector) of the interface cable connector. See Figure 6 for details on the location of Pin 1 on the oximeter PCB connector.

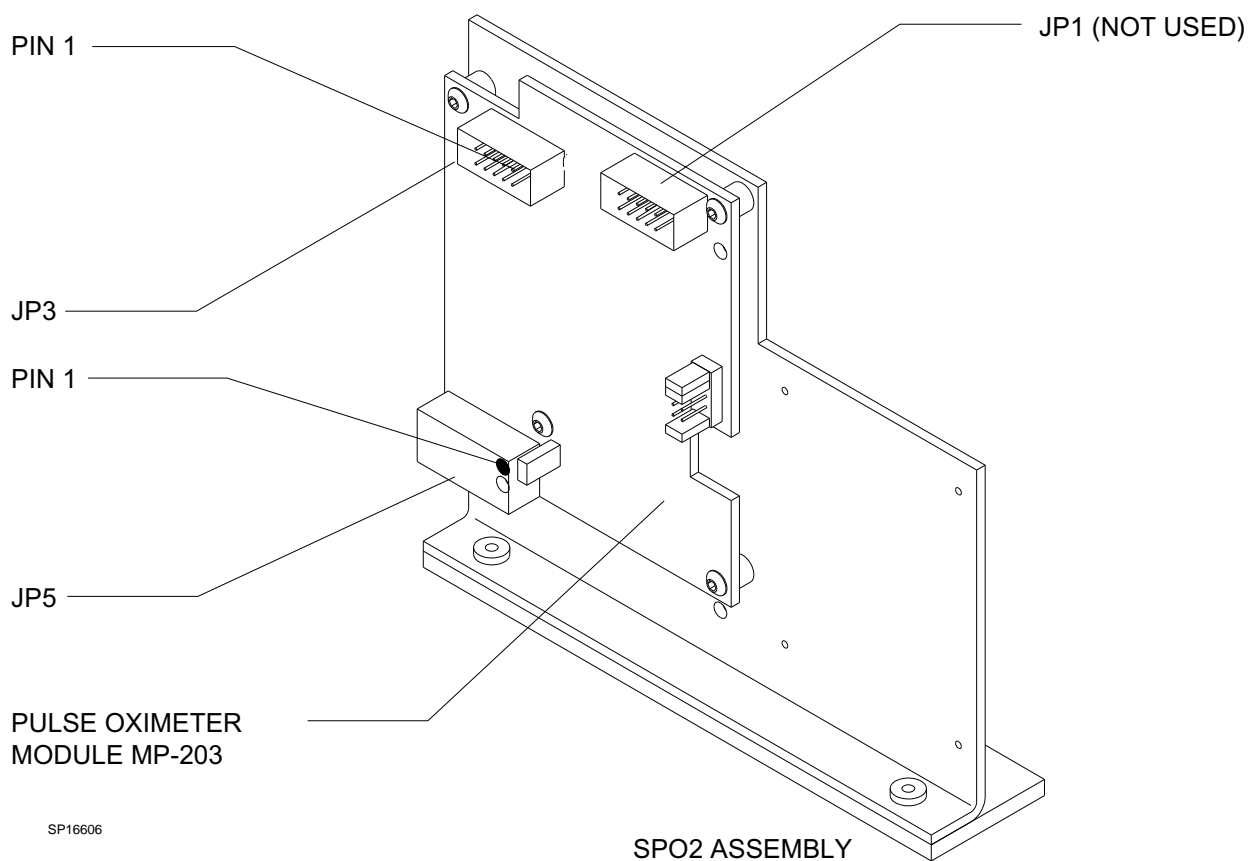


Figure 6: OXIMETER PCB CONNECTIONS

INSTALLATION PROCEDURE (continued)

- | | |
|--|--|
| <p>20. Reinstall the monitor box cover and disposable reservoir (and green filter, if so equipped).</p> <p>21. Reconnect the following items to the patient interface panel on the left side of the monitor box:</p> <ul style="list-style-type: none">--Remote Display cable--BP Cuff & BP Gauge lines--Pulse Oximeter cable--Datagrip cable (if applicable) | <p>22. Enable the circuit breakers by pressing in each button.</p> <p>23. Turn the System Power switch to the ON position.</p> <p>24. Perform a complete PMS procedure on the machine.</p> |
|--|--|



NORTH
AMERICAN
DRÄGER

Quality Service for Life®

Technical Service Department
3122 Commerce Drive
Telford, PA 18969
(215) 721-5402
(800) 543-5047
(215) 723-5935 Fax

Part Number: SP00166
Rev: -
Date: July 1, 1996
© 1996 N.A.D., Inc.